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ABSTRACT

The third-party evaluation of the second year of the Iowa Central Community College Experience Based Career Education (EBCE) Project was based on examination of project records, interviews with project staff, student and resource persons, questionnaires completed by students, parents and resource persons, and test data collected on students at the beginning and end of each semester. The program served 172 students from 23 rural Iowa high schools. The evaluation instruments used were: the Comprehensive Tests of Basic Skills for Mathematics concepts and applications and reading comprehension; the Career Maturity Inventory, evaluating attitude, self-appraisal, occupational information, goal selection, planning, and problem solving; and Student Attitude Survey, measuring attitudes towards learning, career, self and others; and a Socialization Profile. In addition, at the end of the semester student attitude questionnaire, parent opinion survey, and a resource person opinion survey were used. Comparison of pre- and posttest scores for the EBCE students showed statistically significant gains in all three basic skill areas measured (mathematics concepts and application and reading comprehension). The students gained in five of the six areas measured by the Career Maturity Inventory (attitude, occupational information, goal selection, planning and problem solving). They made statistically significant gains in attitude toward learning, careers, and self. (Survey data and questionnaires are appended.) (CT)

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ED164818

ANNUAL EVALUATION REPORT

1977-1978

EXPERIENCE BASED CAREER EDUCATION PROJECT

Administered by

IOWA CENTRAL COMMUNITY COLLEGE

Fort Dodge, Iowa

An Exemplary Project in Vocational Education
Conducted Under
Part D of Public Law 90-576

Project Number 502AH60021
Grant Number G07-76-00090 (502)

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PART I

INTRODUCTION

This report is the third-party evaluation of the second year of operation of the Experience Based Career Education (EBCE) Project administered by Iowa Central Community College, Fort Dodge, Iowa. The report covers the period from October 1, 1977 through September 30, 1978. 172 students were enrolled in the program during the school year.

The program operated in nine centers: Clarion, Fort Dodge, Humboldt, Iowa Central Community College, Lake City, Pocahontas, Sac City, St. Edmonds and Storm Lake. The program followed the EBCE model developed by the Appalacian Educational Laboratory. Technical assistance and training for the project was furnished by that laboratory.

This evaluation is based on examination of project records, interviews with project staff, student and resource persons, questionnaires completed by students, parents and resource persons, and test data collected on students at the beginning and end of each semester.

The report is organized into two parts. Part I includes an executive summary, a description of the evaluation design, general evaluation results, and conclusions. Part II includes detailed results of objective evaluation, measures and statistical tables.

EXECUTIVE SUMMARY

This project involved the development and operation of an Experience Based Career Education (EBCE) Program in Iowa during 1977-78. A semester of the school year was spent in developmental activities and the program was in operation during the second semester. The program served 172 students from 23 rural Iowa high schools. The students were served in nine EBCE centers.

MANAGEMENT

The project was well organized and managed. Tasks were accomplished on time as planned and fiscal control was good.

FACILITIES

Facilities used included a room in a high school building at eight of the sites and two rooms in a separate building used for innovative programs at the other site. The facilities were adequate.

STAFF

The staff consisted of a project field director and twelve learning coordinators. The staff is very competent and has done an excellent job.

TRAINING

Training of the project staff was provided by AEL, the project field director, and experienced EBCE staff. The staff in turn provided training for local teachers, counselors and administrators. The training by both AEL and the project staff has been very good.

PUBLIC INFORMATION

Public information activities have included: 7 meetings attended by about 450 persons, 29 articles published in area newspapers, two television programs, and three newsletters. The public information efforts were adequate but the general public could be better informed through increased use of radio and newspapers.

AEL TECHNICAL ASSISTANCE

Technical assistance for the project was furnished by the Appalachia Educational Laboratory (AEL). AEL was very cooperative, the AEL staff involved was competent, and good technical assistance was provided.

EXPERIENCE SITES

A total of 565 experience sites were developed, of which 496 were actually used by students. They included an appropriate number and variety of jobs and were adequate to meet most student needs.

STUDENTS

The 172 participating students were all high school juniors and seniors, 93 girls and 79 boys. Based on background, achievement and aspirations, they appeared to be a typical group of rural Iowa high school students.

OPINIONS OF STUDENTS, PARENTS, AND RESOURCE PERSONS

The opinion of students, parents and resource persons toward the EBCE program were very positive. The students felt that learning was meaningful through EBCE since they learned by doing and saw the practical application of what they were learning. They also liked the fact that learning was self-directed and the responsibility was placed on them. They liked the sites best where they were able to perform work rather than just watch. Their primary concern was lack of communication with their home schools.

The parents were also very favorable toward the EBCE program. Most were glad their sons and daughters had been in the program and felt they learned more than they would have in regular school programs.

Almost all resource persons felt that they were provided with sufficient information about the program, that the students were interested in EBCE concepts and in their sites, and that they wanted to continue to participate in the program.

GROWTH IN BASIC SKILLS

The EBCE students did very well in basic skills. Comparison of pre- and post-test scores for the EBCE students showed statistically significant gains in all three areas measured--mathematics concepts, mathematics application and reading comprehension. When compared to expected gains as determined by national norms, the EBCE students gained more than would be expected in math concepts and applications. The EBCE students also gained more in all three areas than the comparison students with the difference in gains on math concepts and application being statistically significant at the .05 level.

GROWTH IN CAREER MATURITY

The EBCE students gained in five of the six areas measured by the Career Maturity Inventory (attitude, occupational information, goal selection, planning and problem solving). The gains in the last three areas were statistically

siginificant. The EBCE students gained more than the comparison students in all six areas measured. In three of the areas (goal selection, planning and problem solving) the differences in gains were statistically significant.

GROWTH IN ATTITUDE

The EBCE students made statistically significant (.05 level) gains in attitude toward both learning and careers. They also gained in their attitude toward self, but that gain was not statistically significant. The EBCE students gained more than the comparison students in attitude toward learning, career and self. The difference was statistically significant for attitudes toward learning and careers.

EVALUATION DESIGN

Methods used for this evaluation included: observation, examination of records, interviews, questionnaires and administration of objective achievement and attitude instruments. Simple tabulations and descriptive statistics were used to describe the results of all procedures except the objective measurement instruments.

The design for the affective/cognitive gain part of the evaluation was basically an experimental-control, pretest-posttest design. Ninety-five students served as a control group. Those students were tested at the beginning and end of the year. Comparisons were made between gains of control students and gains of full year EBCE students. Gains of both one semester and full year EBCE students were also compared to expected gains determined from national norms, when appropriate.

The following tests and subtests were used to measure gains over the semester:

Comprehensive Tests of Basic Skills
(CTB/McGraw-Hill, Level 4, Form S)

- Mathematics Concepts
- Mathematics Applications
- Reading Comprehension

Career Maturity Inventory
(CTB/McGraw-Hill)

- Attitude
- Self-Appraisal
- Occupational Information
- Goal Selection
- Planning
- Problem Solving

Student Attitude Survey
(Research for Better Schools)

- Learning
- Career
- Self
- Others

Socialization Profile

Males
Females

In addition, characteristics of both the EBCE and the comparison students were gathered through a Student Information Questionnaire at the beginning of the semester. At the end of the semester, attitudes and opinions of students, parents and employers were gathered through the following instruments:

Student Attitude Questionnaire
Parent Opinion Survey
Resource Person Opinion Survey

MANAGEMENT

A detailed management plan for this project was included in the proposal, pages 12-16 and 34-38. That plan was developed by the project director and a steering committee. Although some modifications to that plan were made as circumstances dictated, the plan remained essentially as originally formulated.

The project was well-organized and managed, particularly in light of the broad geographic area served and the large number of persons involved in various roles. Appropriate financial records were kept and cost management and fiscal control were good.

STAFF

During the first semester the project staff consisted of a project field director and six learning coordinators. When new EBCE centers were opened the second semester, six additional learning coordinators were added to the staff. In addition, several site analysts were employed on a temporary basis as needed.

The staff is, with one or two exceptions, highly competent and have done an excellent job. This is evidenced by their excellent relations with students and resource persons.

The exceptions are cases where learning coordinators appear not to fully understand the philosophy of the EBCE program or to be able to implement EBCE practices. Additional intense in-service training was provided in those cases, but it does not appear to have resulted in much improvement.

TRAINING

In-service training of staff, committees and school personnel was conducted as planned. The following training activites were conducted by the project staff:

- Sixteen training sessions were held for local school administrators. Those sessions were attended by 131 persons.
- Three training sessions were held for school counselors. Those sessions were attended by 20 persons.
- Six training sessions were held for faculty of participating schools. Those sessions were attended by 155 persons.

- One training session was held for school board members. That session was attended by 12 persons.

In addition, many administrators, counselors and teachers attended informational meetings held for students.

Training for the project staff was conducted by AEL and the project field director.

A total of eleven days of in-service training was provided by AEL while five days of in-service training was provided by the project field director. Each learning coordinator received five days of training while each experience site analyst received one day of training.

PUBLIC INFORMATION

Public information efforts included meetings, newspaper articles, newsletters, television programs and a banquet. Many of the meetings included under training in the above section, of course, could also be classified as public information efforts. In addition, the following public information activities were accomplished:

- Four meetings were held for the general public. Those meetings were attended by 287 persons.
- Twenty-nine articles about the project appeared in local newspapers.
- Three meetings were held for parents. Those meetings were attended by 162 persons.
- A banquet was held for resource persons. That banquet was attended by 40 persons.
- Articles about the project appeared in the Iowa State Department of Public Instruction newsletter (2) and the Iowa State Education Association newsletter.
- Two local television stations carried programs about the project; one a two-hour special on the project.

It appears that area educators, prospective students, parents and the public are quite well-informed about the project.

PARENT PERMISSION

During September, 1977 and February, 1978 the third-party evaluator examined a sample of parent permission forms in the EBCE files and found them to be complete.

AEL TECHNICAL ASSISTANCE

The Appalacia Educational Laboratory (AEL) Charleston, West Virginia, developer of this EBCE model, provided training and technical assistance for implementation of the model. A total of 27 days of training and technical assistance were provided. AEL was very cooperative and did an excellent job of providing training and technical assistance. Participating AEL staff included: Jack Sanders, Joe Shively, Steve Hyer, Ann Childs, Phyllis Herrel and Maria Szozda.

EXPERIENCE SITES

A total of 565 experience sites were available for student placement. During the year students were placed in 496 of those sites.

The experience sites represent a broad variety of occupations. A number of sites provided opportunity for exploration in more than one occupation. Thus, the 565 sites actually represented opportunity for 1,154 different placements. On the surface it would appear that the sites would be more than adequate to serve the 172 students in the program. However, it should be remembered that both the sites and the students were spread out over an area 75 miles long and 50 miles wide. Because of time and transportation limitations students were not able to choose placement at sites far from their homes. Also, many of the communities involved are quite small and, even though all potential sites were willing to participate, would still offer a limited variety of experience. Also, many employers limited the number of students they would accept during the year. Placement was further complicated by the fact that other programs in the area were using experience sites, thus, in some cases, EBCE centers had to compete with other programs for site placement. There were few problems with placement at the beginning of the year, but placement of students toward the end of their programs, after students had already explored some sites and after some employers felt they had already accepted their quota of students, became more difficult. That is not to indicate, overall, that student experience site placement was poor. Considering the circumstances it was, in fact, quite good. However, there were some problems placing students in the most appropriate sites. This resulted in students sometimes being placed in sites that were not their primary choices and in students sometimes having to wait for their desired site placements.

STUDENTS

A total of 172 students participated in the project.

93 were female
79 were male

37 were 11th graders
135 were 12th graders

33 were in the program full-time
139 were in the program half-time

41 were in the program all year
131 were in the program one semester

Detailed information about the students is provided in Part II of this report. The students, as a group, appear to be quite typical rural Iowa high school students. They were above average in basic skills. As a group they scored at the 52nd percentile in math concepts, at the 61st percentile in math application and at the 53rd percentile in reading comprehension. Thirty-one percent of their fathers and twenty-nine percent of their mothers had some education beyond high school. Fifty-four percent planned to continue their education after high school. Their most frequent choice as a long-range goal was a professional career. A majority of their fathers were farmers, craftsmen, or laborers; while most of their mothers were homemakers, professionals or salespersons.

STUDENT OUTCOME OBJECTIVES

The student outcome objectives listed below were stated in the evaluation plan of the original proposal. Detailed data concerning the extent to which the objectives were met is provided in Detailed Statistics portion of this report (Part II). The results are summarized below.

Objective 1. Full year EBCE students will do as well in basic academic skills as control students in traditional high schools.

The EBCE students gained more than the control students in each of the three basic skills areas measured, (Math Concepts, Math Application and Reading Comprehension). The difference was statistically significant (p. 10) in the case of Math Concepts and Math Application. (See table 6.) This objective was, therefore, met.

Objective 2. The EBCE students gained more than the control students in all five career knowledge areas measured by the Career Maturity Inventory (CMI). In five of the areas the differences in gains were statistically significant at the .10 level. (See table 7). Thus, this objective was met.

Objective 3. EBCE students will acquire significantly greater (p. 10) career maturity than control students in traditional high schools.

The Attitude part of the CMI was used to measure fulfillment of this objective. The EBCE students did gain more than the control students on this measure, but the difference in gains were not statistically significant (p. 10) (See table 7). This objective, therefore, was not met.

Objective 4. Experimental students will develop significantly more positive (p. 10) attitudes toward learning environment than control students in traditional high schools.

The EBCE students did gain more than the control students in attitude toward learning as measured by SAS and the difference in gains was statistically significant at the .10 level. (See table 8). Thus, this objective was met.

Objective 5. The Socialization Profile was used for attitudes toward both male and female sex roles. The EBCE students gained significantly more in attitude toward female roles (p. 10), but gained less in attitude toward male roles. (See table 9). Thus, this objective was partially met.

SEX ROLE STEREOTYPING

One objective of the EBCE project was the reduction of sex-role stereotyping. The process included placement of students in job experiences where the jobs were traditionally held by persons of the opposite sex and having students work with resource persons who held jobs traditionally held by persons of the opposite sex. The affect in terms of student outcomes was measured through the Socialization Profile which measures attitude toward sex roles. Details placement and attitude are provided in the Sex Role Stereotyping and Socialization Profile sections of Part II of this report (see in particular table 9).

Of the 496 job sites used, 294 were traditionally male, 175 were traditionally female, and 27 were classified as both. A total of 69 resource persons (32 males and 37 females) held jobs that were nontraditional for their sex, that was 13.9 percent of the total resource persons. About half (47.7 percent) of the EBCE students explored a job that was nontraditional for their sex at least once. Also, over half (59.3 percent) of the students had at least one job experience with a resource person of the opposite sex. (See table).

Changes in attitudes of EBCE students were compared to changes in attitudes of the control students. The difference in changes in attitudes toward female roles favored the EBCE students and the difference was statistically significant. (p. 10). However, the difference in changes in attitudes toward male roles favored the control students.

OPINIONS OF STUDENTS, PARENTS AND RESOURCE PERSONS

Questionnaires were used to elicit the opinions of students, parents and resource persons toward the EBCE program. The instruments used and the complete results are provided in the sections labeled Student End-of-Program Questionnaire, Parent Opinion Survey, and Resource Persons Opinions of Part II of this report. All three groups -- students, parents and resource persons -- were very positive in their opinions and attitudes toward the program.

The students felt that learning through EBCE was especially meaningful since they learned by doing and saw the practical application of what they were learning. They also liked the fact that learning was largely self-directed and responsibility for learning was placed on them. They were especially positive toward sites where they were able to be actively involved

in doing jobs rather than just watching. The students felt that the greatest weakness of the program was that some students could not handle the freedom. (See table 10).

Parents were also very positive in their opinions of the EBCE program. (See Table 11). The majority felt that:

- Their children were better off in EBCE than they would have been in regular school programs.
- If they had to do it over again, they would want their children to participate in EBCE.
- Their children liked EBCE as well as or better than regular school programs.
- They received enough information about their children's progress.
- EBCE provided students more opportunity to learn about occupations than regular schools.
- EBCE helped their children form career plans.
- EBCE provided more opportunity for general learning than regular schools.
- Students were motivated to learn through EBCE.

The results of the Resource Persons' Questionnaire show that the resource persons view the EBCE program very favorably. (See table 12). Most resource persons felt that:

- The EBCE staff provided them with the necessary information to help them direct student activites.
- The staff explained reasons for particular placements to them.
- The students were interested in their sites and in the concepts of EBCE.
- Both employees and top-level management were favorable toward the program.
- The program was effective.
- They would continue working with the program.

CASE STUDIES

The other sections of this report are made up primarily of summary statistics. Student data are presented as averages and percentages. From that type of statistics it is difficult to see what happens to individual students as they progress through the program. To show what does happen to individual students, three case studies of individual students were done as part of the evaluation. Those case studies are presented in the following pages. The three cases presented are actual students. The names, however, have been changed to protect their right of privacy.

Jan Wilson

Jan, a senior, was in the EBCE program the full year. She spent half time in the program and half time in her home school, a small high school about 20 miles from the EBCE Center. Jan was a very good student with achievement in both reading and mathematics at above the 95th percentile. She had already made up her mind to pursue a career as a veterinary assistant and wanted to gain some experience in that area as well as other areas. She was also becoming bored with her regular school program.

Jan's father is a farmer and her mother is a homemeker. Her mother graduated from college and her father dropped out of school before completing high school.

Jan heard about the EBCE program through friends. She relates her experience in getting into the program:

"I asked my guidance counselor about the program, but he would not look into the program for me or even find out what it was like for me, so I asked our principal. He checked into the program and gave me the names of people I could talk to.

"I called the school and made an appointment to talk to the learning coordinators after school. One of the other girls in my class was interested too so we both went to talk with them. We asked them about the program and the L.C.'s told us all about it and what we would be doing.

"Both of us signed up for it when we got to school the next day. We were the first two from our school ever to be enrolled in the program."

The experience sites she visited during the year were:

Veterinarian (2)

Feed mill

Law firm

4H Congress

Automobile dealer

She attended the 4H Congress in Chicago as a delegate from her area. She also was involved in an exchange program through which she participated in an EBCE program in Oklahoma for two weeks. During that time she worked with a veterinary in Oklahoma.

She describes her experience working with a veterinarian:

"Working with Dr. Hopkins was very enjoyable for me. We were always working on animals and working with the kind of people that I have grown up with. We worked on various kinds of animals; ranging from cattle to small kittens. We were always outside and around animals. I've grown up with animals and I'm always outside. I'm planning on going into veterinary assistant work, so the experience was really good for me and also it helped me get accepted to college."

Jan wanted to go to college and take a two year program to train to become a veterinary assistant. An admission requirement was having worked with a veterinarian. Thus through EBCE she was able to fulfill that requirement.

Jan was not pleased with all her experience sites. She tells about one:

"The site I liked the least was observing at the law firm. I couldn't really do anything, I just sat around and twiddled my thumbs. I couldn't sit in on client-lawyer talks or lawyer to lawyer. I spent most of my time in the library reading about things I didn't understand.

"I went there for academic reasons; otherwise I don't think I would have chosen to go there."

Through the EBCE program, Jan earned academic credits in career planning, government, and agriculture. She did very well academically and appreciated the way assignments were done. In her words, "I liked the way the assignments were geared. Many times they were about things you were doing at your site,

making it easier to understand. They related to things we could put our hands on and not just things we talked about in books. You could express yourself not only in your assignments but also to your teacher when you met with them each week."

Examples of her assignments were:

Analyze the lifestyle of a veterinarian.

Discover the characteristics of different breeds of animals.

Analyze how breeding sows are bred and managed.

Learn essentials of dog care.

Determine how society enforces decisions.

Learn the value of insurance at a vet's office.

Analyze and decide if membership in a union is or is not advantageous.

Learn the function of the court system.

Jan felt that the EBCE program was most helpful in assisting her in the areas of self analysis, learning about careers and getting along with others. She felt it was less helpful in improving basic skills. She felt that strengths of the EBCE program included:

Good alternative to a regular school program.

Quality of the staff.

Students learn about a variety of careers.

Students learn about "real life" situations and responsibility.

Good way of getting students to learn.

Experience in working with adults.

Individual treatment of students.

She felt that the only weakness was that all students could not handle the freedom inherent in the program.

Carol Goering

Carol Goering was a 12th grade student who spent half time in the EBCE program and half time at her home school. She had been an average high school student. She chose to participate in EBCE because she was unsure of her career plans and felt that EBCE experiences would help her choose and plan her career.

Carol was an average student in high school. Her math achievement was below average but her reading achievement was above average. She knew that she wanted to go to college and enter a profession but did not know what profession. Her father, a college graduate, is a manager while her mother, a high school graduate, is a craftsman.

Carol spent time at the following sites:

Law firm

Clerk of court

Advertising agency

Area education agency

Police station

Nursery school

Real estate company

Opportunity center

Retail store

Hospital

Physical therapist

Carol chose each site carefully so she could learn about a number of occupations in order to make a career decision. She got along extremely well and was well thought of at most of the sites. Resource persons' written comments about her included typically "Fine job," "Impressive, interested," "Mature," "Cooperative,"

"Asked intelligent questions." At one site, however, she was involved primarily in clerical operations. She did not enjoy that nor was she very interested.

Each site experience helped Carol learn more about occupations as well as her own interests and skills. She learned, for example, that she probably does not have enough artistic talent to pursue a career in that area.

At the end of the year Carol had not definitely settled on one career but had narrowed her choices down to two related occupations -- lawyer and probation officer.

During the year Carol took English and Social Studies at her home school. Through the EBCE program she earned credits in career planning, human behavior and economics. She received A's and B's in all her academic work. She did very well studying and learning independently as is required in the EBCE program. Some independent learning objects on which she did the best included:

Determine education needed to become a physical therapist.

Find out all the problems of obtaining a home.

Learn how math affects business.

Write a personal data sheet.

Learn how privileges are denied members of the lower classes.

Learn to open a savings account.

Determine constructive and destructive uses of conflict and their effects in bringing about change.

Carol enjoyed the EBCE program very much. She felt she gained a great deal in career knowledge and career planning. This is reflected by the results of the Career Maturity Inventory on which she scored much higher at the end of the year than at the beginning. She felt EBCE was most helpful in helping her to:

Learn how interests and abilities fit into potential careers.

Improve math skills.

Improve oral communication skills.

Improve writing skills.

Know what level of basic skills proficiency is required in jobs of interests.

Communicate comfortably with adults.

Take responsibility for own actions.

Be prepared to accept adult responsibilities.

She felt EBCE was less helpful in assisting her to:

Develop own creativity.

Learn what to look at when considering a job.

Learn the basic skills necessary for careers of interest.

She felt that EBCE, in comparison with the regular school program, provided more opportunity to learn about occupations, provided more opportunity for general learning, provided more opportunity to progress at own rate, and provided more motivation. She felt that the greatest weakness of EBCE is that some students can't handle the freedom while the greatest strengths are that students learn about "real life" situations and responsibility, and gain experiences in working with adults.

Carol has enrolled in a four year college where she plans to major in criminal justice. Then she hopes to enter law school.

John Baker

John, a full time student in the EBCE program, was a 12th grade student from a small high school near the EBCE center. He had an I.Q. of about 100 but both his school grades and achievement were low. His high school grades were about half C's and half D's. His highest score on the Iowa Tests of Educational Development was in natural sciences where he scored at the 19th percentile. He scored at just the first percentile in reading. He had been absent from school 10½ days as a junior.

John's father is a farmer and his mother is a homemaker. His mother completed high school but his father did not.

John chose to become a part of the EBCE program because he was bored with school and because he felt he would learn more about farming and farm related occupations. Before entering the program he had made up his mind that he wanted to be a farmer.

John has an outgoing personality and got along well with other students, his learning coordinator, and the resource persons he worked with. Previously, however, he had not gotten along well with his teachers. Most of the job sites John chose were related to farming. They included:

De Kalb Seed Corn

Albert City Elevator

Lewis Stanter Farm

Hormel

Lyle's Standard Station

Phillips 66 Station

He got along quite well at his job sites. Employers felt that he was especially willing and able to do and to learn about jobs he was interested in but was less willing to do jobs he was not interested in. He was

enthusiastic about most of his job site experiences. In describing them he would frequently say, "I got to do ---" or "I got to learn about ---." He was particularly glad to learn about farm related areas such as seeds, grain processing, fertilizers, and drugs--knowledge he felt would be useful to him as a farmer. He was usually rated by resource persons as average or above average.

Through the EBCE program John earned academic credits in:

Career Planning

Standard English

Family Relations

Agriculture

Mathematics

Government

He was more interested in academics than he had been in regular school program. Most of his assignments were completed on time and they were, for the most part, rated average or above average by the learning coordinator. Learning objectives that he did the best on included:

To become aware of your personal values and goals in relation to working.

To be able to write a ½ - 1 page paper with no misspelled words.

To learn how to do addition and subtraction of decimals.

To work math problems on measurement and to learn the use of an adding machine at the site.

To solve problems using percentages.

To learn to work problems involving graphs.

To figure cost/acre of producing corn.

To gather information about buying and selling sows and to estimate expenses and profits.

To read and evaluate an article on hog production.

Learning activites that he did poorly in included:

To examine the roles of men and women in our society.

To become aware of different types of profitable recreation available in rural sites.

To learn how wheat is made into flour.

To be able to discuss effect of changing role of women on marriage.

To increase your comprehension when reading.

To increase vocabulary.

To learn basics about how words are formed in order to increase vocabulary.

To increase career awareness.

Who are the decision-makers in our society.

Quite consistently, John did well in learning activities that particularly interested him and for which he could see immediate application to his chosen career. For example, he learned very well how to multiply fractions and percentages when he had to do that as part of his work at a farm elevator.

John's interest in reading also increased over the year. He began the program with a dislike for reading but, when given the opportunity and encouragement to read in areas of particular interest to him, his interest in reading improved markedly.

Although the learning of basic skills was difficult for John, he liked the individualized approach to learning basic skills and learning through application that was possible in the EBCE program. His reading ability, as measured by the CTBS, improved from a grade equivalent of 3.0 to a grade

equivalent of 7.1 over the year.

Incidently, throughout the school year John worked as a school custodian from 4:00 P.M. to 11:00 P.M. five days a week.

John was very pleased with his experiences in the EBCE program. He had his mind made up when he entered the program that he wanted to be a farmer and that career goal did not change. He felt that he learned a number of meaningful things about farming and farm-related areas. He recognized that basic skills were important in farming and made a greater effort than he had ever made before to improve in those areas. He felt that EBCE was most helpful in assisting him to:

Get along with others.

Learn what to look at when considering a job.

Learn how to find and keep a job.

Learn the basic skills necessary for careers that interest you.

Feel prepared to accept adult responsibilities.

He felt that EBCE was least helpful in assisting him to:

Understand the democratic process.

Improve reading skills.

He felt that the greatest strengths of EBCE were:

Students learn about a variety of careers.

Good way of getting students to learn.

The greatest weaknesses, in his opinion, were:

Lack of variety of job sites to meet students' interests.

Could not participate in home school events.

PART II

STUDENT CHARACTERISTICS

Characteristics of students involved in the EBCE program, as well as the students in the control group, are shown in Table 1. There was little difference in the characteristics of the EBCE and control students. None of the differences was statistically significant at the .05 level and none appears so great that it would affect other comparisons made between the two groups.

The characteristics of the EBCE students appear to be about the same as would be found in any group of rural Iowa high school seniors. Thirty-one percent of the students' fathers and twenty-nine percent of their mothers had some education beyond high school. The most popular choice as a long-range goal was a professional career. Fifty-four percent planned to continue their education after high school. A majority of their fathers were farmers, craftsmen or laborers, while most of their mothers were homemakers, professionals or sales persons.

Table 1

STUDENT CHARACTERISTCS

STUDENT INFORMATION QUESTIONNAIRE

EBCE N	EBCE %	NON EBCE N	NON EBCE %	
				1. Are you:
70	48	43	45	☐ Male
75	52	52	55	☐ Female
				2. Are you:
143	98	94	99	☐ White
1	1	0	0	☐ Black
0	0	0	0	☐ Oriental
1	1	0	0	☐ Spanish Descent (Chicano, Puerto Rican, etc.)
1	1	1	1	☐ Native American
0	0	0	0	☐ Other (specify) _____
				3. What is your current grade level (as of September, 1976)?
0	0	2	2	☐ 10th grade
37	26	19	20	☐ 11th grade
108	74	74	78	☐ 12th grade
				4. What is your birth date?

_____ _____ _____
MONTH DAY YEAR

EBCE N	EBCE %	NON EBCE N	NON EBCE %	
				5. What is your father's highest level of formal education completed?
1	1	0	0	☐ None
7	5	9	9	☐ Elementary School
23	17	13	14	☐ Some High School
65	47	48	50	☐ High School Graduate
26	19	17	18	☐ Some postsecondary (for example, some college, junior college, business school, trade or technical school)
10	7	4	4	☐ College graduate (four-year degree)
1	1	2	2	☐ Some graduate work
6	4	3	3	☐ Advanced degree (specify) _____
				6. What is your mother's highest level of formal education completed?
1	1	0	0	☐ None
0	0	1	1	☐ Elementary School
15	11	11	12	☐ Some High School
82	59	57	60	☐ High School Graduate
27	19	11	12	☐ Some postsecondary (for example, some college, junior college, business school, trade or technical school)
10	7	11	12	☐ College graduate (four-year degree)
3	2	1	1	☐ Some graduate work
1	1	3	3	☐ Advanced degree (specify) _____
				7. How many of your brothers and sisters dropped out of school?
122	87	80	85	___ None
14	10	13	14	___ One
3	2	1	1	___ Two
0	0	0	0	___ Three
0	0	0	0	___ Four
1	1	1	1	___ Five or more

EBCE N	EBCE %	NON EBCE N	NON EBCE %	
				8. What are your long-range goals? Check only one.
8	5	10	11	☐ 1. CLERICAL such as bank teller, bookkeeper secretary, typist, mail carrier, ticket agent
20	13	8	8	☐ 2. CRAFTSMAN such as baker, automobile mechanic, machinist, painter, plumber, telephone installer. carpenter
11	7	7	7	☐ 3. FARMER, FARM MANAGER
5	3	6	6	☐ 4. HOMEMAKER OR HOUSEWIFE
4	3	2	2	☐ 5. LABORER such as construction worker, car washer, sanitary worker, farm laborer
10	7	6	6	☐ 6. MANAGER, ADMINISTRATOR such as sales manager, office manager, school administrator, buyer, restaurant manager, government official
6	4	4	4	☐ 7. MILITARY such as career officer, enlisted man or woman in the armed forces
4	3	2	2	☐ 8. OPERATIVE such as meat cutter, assembler, machine operator, welder, taxicab, bus, or truck driver, gas station attendant
40	26	21	22	☐ 9. PROFESSIONAL such as accountant, artist, clergyman, dentist, physician, registered nurse, engineer, lawyer, librarian, teacher, writer, scientist, social worker, actor, actress
2	1	5	5	☐ 10. PROPRIETOR OR OWNER such as owner of a small business, contractor, restaurant owner
6	4	0	0	☐ 11. PROTECTIVE SERVICE such as detective, policeman or guard, sheriff, fireman
5	3	7	7	☐ 12. SALES such as salesman, sales clerk, advertising or insurance agent, real estate broker
4	3	4	4	☐ 13. SERVICE such as barber, beautician, practical nurse, private household worker, janitor, waiter
8	5	6	6	☐ 14. TECHNICAL such as draftsman, medical or dental technician, computer programmer
7	5	3	3	☐ 15. OTHER (specify) _____
10	7	4	4	☐ 16. DON'T KNOW

EBCE N	EBCE %	NON EBCE N	NON EBCE %	
				9. What do you expect to be doing one year after completing high school?
35	21	29	29	☐ Working full time
4	2	3	3	☐ Entering an apprenticeship or on-the-job training program
9	6	4	4	☐ Going into regular military services or to a service academy
2	1	3	3	☐ Being a full-time homemaker
28	17	17	17	☐ Attending a vocational-technical, trade or business school
9	6	4	4	☐ Taking academic courses at junior or community college
20	12	9	9	☐ Taking technical or vocational subjects at a junior or community college
31	19	22	22	☐ Attending a four-year college or university
16	10	7	7	☐ Working part time
9	6	3	3	☐ Other (travel, take a break, no plans)
				10. What is your major field of study?
56	44	23	29	☐ General Curriculum
31	24	24	31	☐ Vocational Education Curriculum
24	19	22	28	☐ College Preparatory Curriculum
16	13	9	12	☐ Other (specify)

11. Under FATHER, circle the one number that best describes the work done by your father (or male guardian). Under MOTHER, circle the one number that best describes the work done by your mother (or female guardian). The exact job may not be listed but circle the one that comes closest. If either of your parents is out of work, disabled, retired, or deceased, mark the kind of work that he or she used to do.

(Circle one number in each column.)

	Father	Mother	Father				Mother			
			EBCE		NON EBCE		EBCE		NON EBCE	
			N	%	N	%	N	%	N	%
CLERICAL such as bank teller, bookkeeper, secretary, typist, mail carrier, ticket agent	01	01	2	1	1	1	22	15	16	18
CRAFTSMAN such as baker, automobile mechanic, machinist, painter, plumber, telephone installer, carpenter	02	02	23	17	11	12	1	1	1	1
FARMER, FARM MANAGER	03	03	30	22	22	25	1	1	1	1
HOMEMAKER OR HOUSEWIFE	04	04	0	0	0	0	65	46	52	58
LABORER such as construction worker, car washer, sanitary worker, farm laborer	05	05	19	14	15	17	3	2	0	0
MANAGER, ADMINISTRATOR such as sales manager, office manager, school administrator, buyer, restaurant manager, government official	06	06	14	10	6	7	7	5	2	2
MILITARY such as career officer, enlisted man or woman in the armed forces	07	07	1	1	0	0	0	0	0	0
OPERATIVE such as meat cutter, assembler, machine operator, welder, taxicab, bus or truck driver, gas station attendant	08	08	13	9	15	17	5	4	1	1
PROFESSIONAL such as accountant, artist, clergyman, dentist, physician, registered nurse, engineer, lawyer, librarian, teacher, writer, scientist, social worker, actor, actress	09	09	8	6	6	7	14	10	9	10
PROPRIETOR OR OWNER such as owner of a small business, contractor, restaurant owner.	10	10	8	6	5	6	2	1	1	1
PROTECTIVE SERVICE such as detective, policeman or guard, sheriff, fireman.	11	11	1	1	1	1	0	0	0	0
SALES such as salesman, sales clerk, advertising or insurance agent, real estate broker.	12	12	14	10	4	4	11	8	2	2
SERVICE such as barber, beautician, practical nurse, private household worker, janitor, waiter	13	13	3	2	3	3	9	6	2	2
TECHNICAL such as draftsman, medical or dental technician, computer programmer	14	14	1	1	0	0	2	1	2	2

EBCE STUDENT GROWTH

Growth of EBCE students was measured by four instruments administered at the beginning and end of their programs. The instruments used were Comprehensive Test of Basic Skills (CTBS), Career Maturity Inventory (CMI), Student Attitude Survey (SAS) and Socialization Profile (SP). The results are shown in Tables 2 and 3.

CTBS

Both the one semester and full year students gained from pretest to posttest administration in all three areas measured by the CTBS--Mathematics Concepts, Mathematics Application and Reading Comprehension. As measured by a t test for mean differences between dependent variables, all gains were statistically significant at the .05 level.

CMI

The one semester students gained on five of the six areas measured by the CMI. Those students dropped slightly in the "Knowing Yourself" category. Three of the gains were statistically significant at the .05 level--Goal Selection, Planning and Problem Solving.

The full year students gained in five of the six areas measured by the CMI and came out the same on the other area. Three of the gains were statistically significant at the .05 level--Goal Selection, Planning and Problem Solving.

SAS

The one semester students gained in three of the four areas measured by the Student Attitude Survey. They remained exactly the same in the other area. The gain in the career attitude area was statistically significant.

The full year students also gained in three of the four areas. They dropped slightly in attitude toward others. Two of the gains (Learning and Careers) were statistically significant.

SP

The Socialization Profile (SP) measures sex role attitudes. Attitudes toward both male and female roles are measured. The higher the score, the more a person's attitudes reflect sex role stereotyping. Thus, a program with activities to reduce sex role stereotyping should result in lowering of scores.

Both the one semester and full year students become somewhat more stereotyped in their attitudes toward male roles and less stereotyped in their attitudes toward female roles. For both one semester and full year students the gains in attitudes toward female roles were statistically significant.

Table 2

Differences Between Pretest and Posttest Scores
for EBCE Students on the CTBS, CMI, SAS and SP
One Semester Students

	Pretest			Posttest				
Instrument/Subject	Mean	S.D.	Percentile	Mean	S.D.	Percentile	Gain	t
CTBS								
Math Concepts	17.50	5.00	52	18.30	4.27	54	.80	2.76*
Math Application	17.00	6.77	61	17.67	6.62	62	.67	1.86*
Reading Comp.	30.54	7.32	53	31.24	8.42	53	.70	1.79*
CMI								
Attitude	36.12	5.02	46	36.92	5.57	52	.80	1.08
Self	13.74	3.57	42	13.62	4.34	41	-.12	-.22
Occup. Info.	16.21	3.17	59	16.49	4.21	62	.28	.53
Goal Selection	13.43	3.38	42	14.32	3.82	49	.89	1.77*
Planning	12.86	4.51	50	14.17	4.59	57	1.31	2.07*
Problem Solving	10.74	3.22	57	11.76	3.89	66	1.02	2.04*
SAS								
Learning	3.37	.496		3.46	.503		.09	1.30
Careers	3.68	.466		3.86	.435		.18	2.89*
Self	3.61	.550		3.68	.469		.07	1.00
Others	3.69	.447		3.69	.377		.00	.00
SP								
Males	1609.24	118.37		1614.30	116.72		-5.06	-.44
Females	1414.67	216.17		1301.11	135.82		113.56	5.65*

* Difference between means statistically significant at .05 level.

Table 3

Differences Between Pretest and Posttest Scores
for EBCE Students on the CTBS, CMI, SAS and SF
Full Year Students

	Pretest			Posttest				
Instrument/Subject	Mean	S.D.	Percentile	Mean	S.D.	Percentile	Gain	t
CTBS								
Math Concepts	16.05	4.73	44	17.77	3.94	49	1.72	3.07*
Math Application	14.36	5.33	49	16.03	4.99	53	1.67	2.53*
Reading Comp.	28.62	8.78	47	30.13	9.20	46	1.51	1.94*
CMI								
Attitude	36.10	4.69	46	36.38	4.86	48	.28	.49
Self	13.53	3.60	39	13.53	4.31	39	.00	.00
Occup. Info.	15.35	3.63	49	15.83	3.37	54	.48	.87
Goal Selection	12.43	3.66	36	14.08	3.06	47	1.65	3.17*
Planning	10.43	5.01	40	12.48	4.31	48	2.05	3.15*
Problem Solving	9.58	3.73	49	10.68	3.30	56	1.10	1.90*
SAS								
Learning	3.44	.479		3.88	.553		.44	6.09*
Careers	3.76	.403		4.08	.381		.32	5.90*
Self	3.70	.505		3.78	.524		.08	1.12
Others	3.78	.450		3.74	.475		-.04	-.62
SP								
Males	1542.38	116.67		1628.08	132.57		-85.70	-4.00*
Females	1599.85	172.62		1283.13	138.22		316.72	7.71*

* Difference between means statistically significant at .05 level.

GROWTH OF EBCE STUDENTS COMPARED WITH GROWTH OF STUDENTS IN REGULAR SCHOOL PROGRAMS

EBCE student growth was measured by administering the following instruments at the beginning and again at the end of the program. Comprehensive Tests of Basic Skills (reading comprehension, mathematics concepts and mathematics applications), Career Maturity Inventory, Student Attitude Survey and Socialization Profile. The same instruments were administered to the comparison students at both the beginning and end of the year. The results, along with analysis of covariance tests of differences in gains between the EBCE and comparison students, are shown in the following tables. The F values shown in the tables are the results of tests of differences in gains between the EBCE and comparison students using analysis of covariance with the pretest scores as the covariates.

COMPREHENSIVE TESTS OF BASIC SKILLS (CTBS)

EBCE student growth in basic skills, as measured by the CTBS, was compared with expected growth determined by national norms and growth of the comparison students. The results of the comparisons with national norms are shown in Tables 4 and 5 while the results of comparisons with the comparison group of students are shown in Table 6.

As shown in Table 4, the one semester EBCE students gained more than would be expected in Math Concepts and Math Application but gained slightly less than expected in Reading Comprehension. None of the differences between actual and expected gains was statistically significant.

The full year EBCE students gained more than expected in all three areas measured. The difference between actual and expected gain in Math Concepts was statistically significant.

Table 6 compares the gains on the CTBS of the full year EBCE students with the comparison students. In each of the three areas measured, the EBCE students gained more than the comparison students. In two of the areas (Math Concepts and Math Application) the difference in gains was statistically significant.

Table 4

Comparison of EBCE Student Gains on the CTBS with Expected Gains One Semester Students

Subtest	Pretest Mean	Expected Posttest Mean	Actual Posttest Mean	Difference = Actual - Expected	t
Math Concepts	17.50	17.76	18.30	.54	.90
Math Application	17.00	17.45	17.67	.32	.52
Reading Comp.	30.54	31.27	31.24	-.03	-.04

Table 5

Comparison of EBCE Student Gains
on the CTBS with Expected Gains
Full Year Students

Subtest	Pretest Mean	Expected Posttest Mean	Actual Posttest Mean	Difference = Actual - Expected	t
Math Concepts	16.05	16.75	17.77	1.02	1.67*
Math Application	14.36	15.14	16.03	.89	1.16
Reading Comp.	28.62	30.21	30.13	.08	.06

* Difference statistically significant at .05 level.

Table 6

Comparison of Pretest and Posttest Scores
of the EBCE and Comparison Students on
the Comprehensive Tests of Basic Skills
Full Year Students

		Pretest			Posttest					
Subtest	Group	Mean	S.D.	Percentile	Mean	S.D.	Percentile	Gain	Diff. in Gains	F
Math Concepts	EBCE	16.05	4.73	44	17.77	3.94	49	1.72	2.08	4.40*
	Comp.	18.27	4.13	56	17.91	5.26	50	-.36		
Math Application	EBCE	14.36	5.33	49	16.03	4.99	53	1.67	2.37	4.76*
	Comp.	16.88	5.47	61	16.18	6.28	54	-.70		
Reading Comp.	EBCE	28.62	8.78	47	30.13	9.20	46	1.51	1.74	1.43
	COMP.	29.34	7.79	49	29.11	10.34	43	-.23		

* Difference in gains statistically significant at .05 level (analysis of covariance).

CAREER MATURITY INVENTORY (CMI)

Comparison between gains on the CMI between full year EBCE students and the comparison students are shown in Table 7. As shown, the EBCE students out gained the comparison students in all six areas measured. In three of the areas (Goal Selection, Planning and Problem Solving) the differences in gains were statistically significant.

Table 7

Comparison of Pretest and Posttest Scores
of the EBCE and Comparison Students on
the Career Maturity Inventory
Full Year Students

		Pretest			Posttest					
Scale	Group	Mean	S.D.	Percentile	Mean	S.D.	Percentile	Gain	Diff. in Gains	F
Attitude	EBCE	36.10	4.69	46	36.38	4.86	48	.28	.75	.73
	Comp.	35.76	5.39	43	35.29	6.67	40	-.47		
Self-Appraisal	EBCE	13.53	3.60	39	13.53	4.31	39	.00	1.36	3.86
	Comp.	13.07	3.51	36	11.71	4.84	24	-1.36		
Occupational Information	EBCE	15.35	3.63	49	15.83	3.37	54	.48	1.83	3.66
	Comp.	16.38	3.49	61	15.03	5.11	45	-1.35		
Goal Selection	EBCE	12.43	3.66	36	14.04	3.06	47	1.61	2.68	19.73*
	Comp.	13.16	2.09	40	12.09	4.34	34	-1.07		
Planning	EBCE	10.43	5.01	40	12.48	4.31	48	2.14	3.28	7.77*
	Comp.	13.31	3.67	52	12.17	4.74	48	-1.14		
Problem Solving	EBCE	9.58	3.73	49	10.69	3.30	56	1.11	2.13	4.80*
	Comp.	11.14	3.51	59	10.12	4.16	52	-1.02		

* Difference in gains statistically significant at .05 level (analysis of covariance).

STUDENT ATTITUDE SURVEY (SAS)

The SAS comparisons between full year EBCE students and the comparison students are shown in Table 8. As shown, the EBCE students gained more than the comparison students in three of the areas measured and were even in the fourth area. In two areas (Learning and Careers) the differences in gains were statistically significant.

Table 8

Comparison of Pretest and Posttest Scores
of the EBCE and Comparison Students on
the Student Attitude Survey
Full Year Students

		Pretest		Posttest				
Scale	Group	Mean	S.D.	Mean	S.D.	Gain	Diff. in Gains	F
Learning	EBCE	3.44	.479	3.88	.553	.44	.50	7.15*
	Comp.	3.39	.478	3.33	.556	-.06		
Careers	EBCE	3.76	.403	4.08	.381	.32	.30	4.50*
	Comp.	3.82	.400	3.84	.388	.02		
Self	EBCE	3.70	.505	3.78	.524	.08	.07	1.52
	Comp.	3.66	.583	3.67	.518	.01		
Others	EBCE	3.78	.450	3.74	.475	-.04	.00	.00
	Comp.	3.75	.505	3.71	.527	-.04		

*Difference in gains statistically significant at .05 level (analysis of covariance).

SOCIALIZATION PROFILE (SP)

The Socialization Profile was used to measure sex role attitudes. The higher the score, the more a person's attitudes reflect sex role stereotyping. Results of comparisons between full year EBCE students and comparison students are shown in Table 9. As shown, both EBCE and comparison students became more stereotyped in their attitudes toward male roles and less stereotyped in their attitudes toward female roles. In the case of attitudes toward female roles, the difference in gains was statistically significant in favor of the EBCE students.

Table 9

Comparison of Pretest and Posttest Scores
of the EBCE and Comparison Students on
Socialization Profile
Full Year Students

		Pretest		Posttest				
Scale	Group	Mean	S.D.	Mean	S.D.	Gain	Diff. in Gains	F
Male	EBCE	1542.38	116.67	1628.08	132.57	-85.70	-84.48	.28
	Comp.	1596.37	131.05	1597.59	125.01	- 1.22		
Female	EBCE	1599.85	172.62	1283.13	138.22	316.72	149.72	6.49*
	Comp.	1451.39	217.99	1284.39	169.35	167.00		

*Difference in gains statistically significant at .05 level (analysis of covariance).

STUDENT ATTITUDE QUESTIONNAIRE

As part of the evaluation of the EBCE program, students completed questionnaires when they finished their programs. The results are shown in Table 10.

As shown by items 3 and 4, almost all students (96%) had an opportunity to observe and work at at least one job they felt they wanted to pursue.

Items 5 and 6 show that most of the students (79%) were fairly clear about the steps they need to take in order to prepare for and enter the job of their choice, and almost all (98%) felt they would be able to complete those steps.

Item 7 shows that the greatest influences on the students choices for careers were experience in observing and trying out jobs and talking to people who work at the jobs.

Item 8 shows that EBCE was helpful in changing students minds about jobs through providing on-site observation and experience. Three-fourths of the students who changed their minds about jobs indicated that they changed because of experience in observing and trying out jobs.

Items 9 through 29 show that students felt EBCE was most helpful in assisting them to--

- learn how your interests and abilities fit into potential careers
- learn what to look at when considering a job
- communicate comfortably with adults
- get along with others
- take responsibility for your own actions
- feel prepared to accept adult responsibilities
- learn the basic skills necessary for the careers that interest you
- understand more about yourself
- become more open to ideas and values different from your own
- learn how to find and keep a job
- use information obtained through direct experiences in making decisions

Students felt EBCE was least helpful in assisting them to--

- improve your math skills
- improve your reading skills

- understand the democratic process

- solve problems logically

The majority of the students rated the EBCE program excellent (item 31) and felt that if they had it to do over again, they would definitely participate in EBCE.

In comparing EBCE with regular school programs, students felt that EBCE provided them more opportunities to learn about occupations (item 33), more opportunity for general learning (item 34) and more motivation to learn (item 35).

Students felt that the greatest weakness of the program was the fact that some students can't handle the freedom (item 36). They felt that the greatest strengths were that students learn about a variety of careers and that students learn about "real life" situations and responsibility (item 37).

Thus from the students' point of view, it appears that career educational objectives were met through the EBCE program.

Table 10

EBCE STUDENT END-OF-PROGRAM QUESTIONNAIRE

1. What do you expect to be doing one year after completing high school?

21%	35	1. Working full time
1%	2	2. Entering an apprenticeship or on-the-job training program
4%	7	3. Going into regular military service or to a service academy
18%	31	4. Attending a vocational, technical, trade or business school
15%	26	5. Attending a junior or community college
20%	34	6. Attending a four-year college or university
13%	21	7. Working part time
6%	4	8. Other (travel, take a break)
6%	4	9. I have no idea what I'll be doing

2. How far do you plan to pursue your formal education. (Check one)

0	0	1. Don't plan to finish high school
23%	33	2. Graduate from high school
43%	60	3. High school plus one or two years of college, community college or special training
9%	12	4. High school plus three or more years of college, community college or special training
18%	25	5. Graduate from four-year college
8%	11	6. Graduate or professional training beyond college

3. List two jobs you feel you might like to hold after completing your education. Give the vocation rather than location. (For example, say "a drafter" rather than "working at National Engineering.")

4. Have you observed or directly worked at either or both of the two preferred jobs listed for questions 3?

58%	82	1. I observed or worked at both jobs
38%	53	2. I observed or worked at one of these two jobs
4%	6	3. I did not observe or work at either job

5. How sure are you of steps to prepare for and enter the job which you would most like to hold after graduation?

3%	4	1. Do not know where to begin
18%	26	2. Have some idea
52%	75	3. Steps pretty clear
27%	39	4. Steps quite clear

6. Do you feel you will be able to complete the necessary steps for this job?

98%	129	1. Yes
8%	12	2. Not sure
1%	1	3. Probably not

7. What aspects of your learning experience this year (if any) influenced your choice of potential careers? (Check as many as apply).

6%	9	1.	None
24%	34	2.	I talked to teachers or a counselor about my choices
56%	79	3.	I talked to people who work at the jobs
34%	47	4.	I talked with relatives or friends about my choices
75%	105	5.	I had experience in observing or trying out the jobs
28%	39	6.	I read about the jobs
31%	43	7.	I talked to a learning coordinator about the job
4%	6	8.	Other (please write in)

8. a. Are there any jobs that last year seemed interesting that you now feel do not match your interests or abilities?

1. 53% 74 Yes 2. 47% 67 No

b. What caused you to change your mind about the job(s)? (Check one or more of the following.)

4%	3	1.	Advice from teachers
15%	11	2.	Advice from relatives or friends
17%	13	3.	Advice from someone who works at the job(s)
15%	11	4.	Information I have read about the job(s)
75%	56	5.	Experience in observing or trying out the job(s)
37%	28	6.	My interests have changes
1%	1	7.	I don't know
3%	2	8.	Advice from a counselor
3%	2	9.	Advice from a learning coordinator
3%	2	10.	Other (Please state your reason)_____

On the grid please circle a number from 1 to 5 to indicate how helpful you feel EBCE has been to you in reading each objective. (For example, if you feel EBCE was very helpful circle 5, if moderately helpful circle 3 and if little or no help circle 1.)

How helpful do you feel your EBCE experiences this year have been in assisting you to--

		Of Little or No Help						Very Helpful				
		1		2		3		4		5		Average
		N	%	N	%	N	%	N	%	N	%	
9.	solve problems logically	1	1	8	5	55	38	65	45	17	12	3.61
10.	understand more about yourself	2	1	3	2	19	13	70	49	50	35	4.13
11.	get along with others	0	0	2	1	12	8	72	50	58	40	4.29
12.	understand the democratic process	2	1	19	14	62	44	48	34	9	6	3.31
13.	develop your own creativity	1	1	6	4	39	27	54	38	42	30	3.92
14.	learn how your interests and abilities fit into potential careers	0	0	1	1	17	12	49	35	74	52	4.39
15.	learn how society's values, the government and the economy affect the world of work	2	1	14	10	49	34	38	27	40	28	3.70
16.	learn what to look at when considering a job	1	1	1	1	13	9	61	43	67	47	4.34
17.	learn how to find and keep a job	0	0	5	3	25	17	65	45	48	34	4.09
18.	learn the basic skills necessary for the careers that interest you	1	1	2	1	30	21	51	36	58	41	4.15
19.	improve your reading skills	3	2	23	16	64	45	43	30	8	6	3.21
20.	improve your math skills	16	11	28	20	57	40	30	21	12	8	2.96
21.	improve your oral communication skills	2	1	5	4	39	27	49	35	47	33	3.94
22.	improve your writing skills	1	1	11	7	54	36	51	34	31	21	3.68

		Of Little or No Help						Very Helpful				
		1		2		3		4		5		Average
		N	%	N	%	N	%	N	%	N	%	
23.	know what level of basic skills proficiency is required in the jobs of interest to you	0	0	5	4	33	23	68	48	35	25	3.94
24.	become acquainted with a broad range of resources to use in gathering information for work and decision making	0	0	5	4	47	33	50	35	40	28	3.88
25.	communicate comfortably with adults	0	0	2	1	12	8	64	47	63	44	4.33
26.	take responsibility for your own actions	0	0	3	2	15	10	62	43	63	44	4.29
27.	become more open to ideas and values different from your own	0	0	5	3	27	19	60	42	51	36	4.10
28.	use information obtained through direct experiences in making decisions	1	1	4	3	30	21	56	39	51	36	4.07
29.	feel prepared to accept adult responsibilities	0	0	2	1	10	7	75	53	55	39	4.29

30. How would you rate the overall quality of your EBCE program?

Poor								Excellent	
1		2		3		4		5	
0	0%	1	1%	6	4%	55	39%	80	56%

31. If you had it to do over again, do you think you would decide to participate in EBCE?

Definitely no								Definitely yes	
1		2		3		4		5	
2	1%	1	1%	11	8%	31	22%	98	69%

32. In EBCE, have you felt that you could progress at your own rate?

Definitely no								Definitely yes	
1		2		3		4		5	
0	0%	0	0%	14	10%	49	35%	79	56%

33. In comparison with the regular high school program, how much opportunity did EBCE provide you for learning about occupations?

Much Less				About Same				Much More	
1		2		3		4		5	
0	0%	0	0%	6	4%	33	23%	104	73%

34. In comparison with the regular high school program, how much opportunity did EBCE provide you for general learning?

Much Less				About Same				Much More	
1		2		3		4		5	
0	0%	3	2%	32	22%	60	42%	48	34%

35. In comparison with past experiences in the regular high school program, how motivated are you to learn in EBCE?

Much Less				About Same				Much More	
1		2		3		4		5	
0	0%	2	1%	18	13%	59	42%	61	44%

36. What do you think are the two greatest <u>weaknesses</u> of the EBCE program? (Check the responses you feel are most applicable or write in your own response.)

42%	60	1. Some students can't handle the freedom
11%	16	2. Problems in the organization/staffing of the program
11%	16	3. Students not receiving sufficient training in basic skills or survival skills
6%	8	4. Inadequate supervision of students on job sites
29%	40	5. Lack of a variety of job sites to meet students' interests
35%	49	6. Other (please write in) _____

37. What do you think are the two greatest <u>strengths</u> of the EBCE program? (Check the responses you feel are most applicable or write in your own

37%	52	1. Good alternative to a regular school program
25%	35	2. Quality of the staff
69%	96	3. Students learn about a variety of careers
69%	96	4. Students learn about "real life" situations and responsibility
20%	28	5. Good way of getting students to learn
31%	44	6. Experience in working with adults
22%	31	7. Individual treatment of students
11%	15	8. Other (please write in) _____

PARENT OPINION SURVEY

Parent opinions of the EBCE program were gathered through a Parent Opinion Survey. The items used and the responses are shown in Table 11. As shown by the results of the survey, parents were very positive toward the EBCE program.

Item 1 shows that no parents felt that past school experiences were better than EBCE for their sons and daughters.

If they had it to do over again, only two parents would not want their sons and daughters in EBCE (item 2).

Every parent felt that their sons and daughters liked EBCE as well as or better than past school experiences (item 3).

In response to item 4, parents felt that the greatest weaknesses of the program were--

1. Transportation problems
2. Not enough job sites
3. Limited variety of job sites

They felt that the greatest strengths of the program were (item 5)--

1. Students learn about a variety of jobs which help them make a career choice
2. Students acquire experiences not available in the classroom
3. Students learn how to work with people

In response to item 6, parents were mixed in their opinions of whether they received enough information about their sons and daughters progress.

In response to items 7-11, parents felt that--

- EBCE provided students much more opportunity to learn about occupations than regular schools.
- EBCE had a good effect in helping their children form career plans.
- EBCE provided more opportunity for general learning than regular schools.
- Students were more motivated to learn through EBCE.
- EBCE used good approaches to learning

In response to item 12, the most frequently mentioned positive changes parents noticed in their children that might be a result of EBCE were--

1. Learned about career choices and now more definite about future plans.
2. More responsible.
3. More willing and able to deal with people.
4. Better attitude toward school.

In response to item 13, only four parents listed any negative changes in their children. Those had to do with missing school activities and decreased interest in academics.

Item 14 shows that the EBCE students frequently talked about EBCE with their parents but items 15 and 16 show that parents had little contact with EBCE staff or other EBCE parents.

Parents were very positive in their ratings of the EBCE staff (item 17), business and community resources (item 18) and enthusiasm of the EBCE staff (item 20). However, they gave mixed ratings to their overall relationships with the EBCE staff (item 19).

Most of the parents felt that the occupational plans of their children were good (item 21) and most felt that students who are uncertain about career plans benefit most from EBCE (item 24).

Table 11

PARENT OPINION SURVEY

1. How well does the EBCE program compare overall with the past school experiences of your daughter or son?

Much Worse				Much Better
0	0	22	43	55
1	2	3	4	5
0	0	18%	36%	46%

2. If you had it to do over again, would you want your son or daughter to participate in the EBCE program?

Definitely NO				Definitely YES
1	1	4	29	87
1	2	3	4	5
1%	1%	3%	24%	71%

3. How well do you think your son or daughter likes the EBCE program compared with past school experiences?

Much Worse				Much Better
0	0	8	36	78
1	2	3	4	5
0	0	7%	30%	64%

4. What do you think are the greatest weaknesses of the EBCE program?

(15) Transportation problems
(13) Not enough job sites
(11) Limited variety of job sites
(6) Students would like to do more at job sites
(6) Stay at job sites not long enough
(6) Too much freedom and free time
(5) Employers use students as employees and don't help them learn anything
(4) Lack of contact between all parties
(3) Parents not informed enough about student's project
(3) Poor evaluation of student learning
(3) Miss out on school activities
(2) Businesses not enthusiastic enough
(2) Student worksheets
(2) EBCE staff
(1) Students miss some regular school
(1) Poor time schedule--work and school
(1) Lack of discipline
(1) Program should begin at lower grade level
(1) Students should be paid

5. What do you thing are the greatest strengths of the EBCE program?

(51) Students learn about a variety of jobs which help them make a career choice
(21) Students acquire experiences not available in the classroom
(16) Students learn how to work with people
(12) Students learn responsibility
(12) Students get on the job training
(11) Students learn the routine of a regular job
(8) Good job sites
(7) Excellent staff
(4) Good participation by all parties
(4) Good paperwork for students
(3) Develop good relationships with people involved
(1) People involved very interested in students
(1) Students get good advice from employees
(1) Good supervision

6. Have you received enough information about your son's or daughter's progress in the EBCE program?

Definitely NO				Definitely YES
16	15	23	35	34
1	2	3	4	5
13%	12%	19%	28%	28%

7. In comparison with regular schools, how much opportunity did the EBCE program provide your daughter or son for learning about occupations?

Much Less				Much More
0	0	10	26	87
1	2	3	4	5
0	0	8%	21%	71%

8. What effect, if any, has the EBCE program had on helping your son or daughter form career plans?

Definitely Bad				Definitely Good
0	1	23	34	63
1	2	3	4	5
0	1%	19%	28%	52%

9. In comparison with regular schools, how much opportunity did the EBCE program provide your daughter or son for general learning?

Much Less		About the Same		Much More
1	2	29	49	41
1	2	3	4	5
1%	2%	24%	40%	34%

10. In comparison with past experiences in regular schools, how motivated is your daughter or son to learn in the EBCE program?

Much Less		About the Same		Much More
0	2	12	55	54
1	2	3	4	5
0	2%	10%	45%	44%

11. How would you rate the approaches to learning used in the EBCE program

Poor				Good
0	1	20	49	54
1	2	3	4	5
0	1%	16%	40%	44%

12. What positive changes have you noticed in your son or daughter that might be a result of participation in the EBCE program?

(47) Learned about career choices and now more definite about future plans
(17) More responsible
(14) More willing and able to deal with people
(13) Better attitude toward school
(13) Shows more interest in EBCE school than regular classes
(13) More self-confidence, better self-image
(6) Better outlook on life
(2) Happier than when in regular classes

13. What negative changes have you noticed in your son or daughter that might be a result of participation in the EBCE program?

(2) Misses school activities
(2) Decreased interest in academics

14. How often does your son or daughter talk to you about what's going on in the EBCE program?

Almost Never				Almost Daily
7	7	18	37	62
1	2	3	4	5
5%	5%	14%	28%	47%

15. About how often have you had any contact with any EBCE program staff members?

Almost Never				Very Frequently
45	28	24	15	9
1	2	3	4	5
37%	23%	20%	12%	7%

16. How many meetings have you attended during this school year where other parents of EBCE students were present?

68	41	7	4	1
None	1	2	3	4 or More
56%	34%	6%	3%	1%

17. How would you rate the general quality of the EBCE program staff?

Poor				Excellent
0	2	16	48	50
1	2	3	4	5
0	2%	14%	41%	43%

18. How would you rate the business or community resources available in the EBCE program?

Poor				Excellent
1	6	27	53	36
1	2	3	4	5
1%	5%	22%	43%	29%

19. How would you rate your overall relationship with the staff of the EBCE program?

Poor				Excellent
11	12	25	33	36
1	1	3	4	5
9%	10%	21%	28%	31%

20. How would you rate the enthusiasm of the EBCE program staff?

Poor				Excellent
1	2	16	36	62
1	2	3	4	5
1%	2%	14%	31%	53%

21. What do you think of the occupational plans of your daughter or son?

(29%) a. 37 There aren't any firm plans yet.

(2%) b. 3 The plans should be changed.

(66%) c. 83 The plans seem to be good.

(2%) d. 3 We haven't really had a chance to discuss the plans.

22. What do you think your son or daughter will be doing a year after high school?

(29%) a. 39 Working

(39%) b. 53 Attending some kind of college

(24%) c. 32 Going to a business or trade school

(5%) d. 7 Military

(3%) e. 4 Other (please specify

23. How did you first hear about the EBCE program?

64%	(82)	Student	1%	(1)	Service Organization
25%	(32)	School	1%	(1)	EBCE Staff
9%	(12)	School counselor	1%	(1)	Friend

24. What kinds of students do you think benefit most from the EBCE program?

(56) Students who are undecided about career plans
(26) All students
(16) Non-college bound students
(14) Those who are not academically oriented
(5) Students who know which job they would like to go into

RESOURCE PERSONS' OPINIONS

A questionnaire was used to determine the opinions of participating resource persons toward the EBCE program. The items used and results are shown in Table 12. Responses were received from over 200 resource persons.

As shown by the results, the resource persons were quite favorable toward the EBCE program. The results show that:

- Most resource persons talked with students about activities at the site, talked about job opportunities, and supervised students in performing specific job-related tasks (item 2).

- Almost all (95%) felt that the program staff provided enough information to help direct student activities at the site (item 4).

- Almost all (96%) indicated that they would recommend participation in the program to another employer or resource person (item 5).

- Most felt that students had definitely benefited from being at the site (item 6) and that students were really interested in learning new things (item 7).

- They were mixed in their feelings as to whether they received adequate feedback about what happens to students after they leave the site (item 8) and about the effectiveness of their work with students (item 9).

- Most indicated that employees at the site reacted favorable toward participation in EBCE (item 10). They felt that the greatest benefit to employees was increased awareness of youth (item 11).

- Almost all (95%) plan to continue to participate in EBCE (item 12).

- They felt that the greatest strengths of the program are that students learn about real life situations and students learn about a variety of careers (item 13). The weakness most frequently mentioned were lack of feedback about students and some students can't handle the freedom (item 14).

- Most felt that things students are able to learn on job sites that they are not able to learn in regular school classrooms are first hand knowledge of demands in a "real world", working with other people, on-the-job skills, and self discipline (item 15).

Table 12

RESOURCE PERSONS' OPINION SURVEY

1. How many students did you have during the past school year?

No. of Students		
1	132	64%
2	45	22%
3	14	7%
4	8	4%
5	6	3%
6	1	0%
7	0	0%
8	1	0%

How long was each placement?

No. of Weeks		
1	13	5%
2	27	11%
3	64	27%
4	34	14%
5	14	6%
6	38	16%
7	3	1%
8	11	5%
9	8	3%
10	3	1%
11	4	2%
12	5	2%
13	13	5%

2. Which of the following supportive services do you (or others at your site) provide for the students? (Check each appropriate category)

Talk about job opportunities?	175	86%
Talk about the student's personal problems?	65	32%
Talk about activities at your site?	191	94%
Tutor in an academic area?	31	15%
Evaluate individual student's assignments?	103	50%
Assist students in non-job-related assignments?	40	20%
Supervise students to perform a specific job-related task at your site?	180	88%
Help plan student assignments?	68	33%
Other _____	15	7%

3. How did you first become involved with the program? (check appropriate response)

78%	171	1. Program personnel contacted me about the program
14%	31	2. A student talked to me about the program
0%	1	3. Another employer talked to me about the program
5%	11	4. Company personnel talked to me about the program
2%	4	5. Other _____

4. Did the program staff provide you with enough information to help you direct student activities at your site?

95%	190	1. Yes
5%	10	2. No

5. Would you recommend to a potential employer or resource person that he/she also become involved with the program?

96%	180	1. Yes
4%	8	2. No

6. In general, do you think the EBCE students you have worked with have benefited by being at your site? Circle the appropriate number from 1 (definitely no) to 5 (definitely yes).

Definitely NO				Definitely YES
2	5	46	65	86
1	2	3	4	5
1%	2%	23%	32%	42%

7. In general, do you think the students you have worked with are really interested in learning new things?

Definitely NO				Definitely YES
2	5	29	64	102
1	2	3	4	5
1%	2%	14%	32%	50%

8. Do you receive adequate feedback about what happens to the students after they leave your site? Circle a number from 1 (never) to 5 (always).

Never				Always
30	38	52	29	25
1	2	3	4	5
17%	22%	30%	17%	14%

9. Do you receive adequate feedback about the effectiveness of your work with the students?

Never				Always
24	34	50	42	29
1	2	3	4	5
13%	19%	28%	23%	16%

10. How have employees at your site reacted to your agency's participation in EBCE? (Check one)

69%	139	1. Positive reaction	4%	8	4. No reaction
0%	0	2. Negative reaction	4%	8	5. Not applicable
19%	38	3. Mixed reaction	4%	7	6. Don't know

11. In what ways (if any) have the employees at your site benefited? Check one or more appropriate response(s):

6%	12	1.	They haven't benefited
44%	90	2.	Increased their awareness of youth
9%	18	3.	Motivated the regular employees to further training
23%	47	4.	Reduced their workload
21%	42	5.	Increased interest in their own work
13%	27	6.	I don't know
16%	33	7.	Other_____

12. Do you plan to continue participating in the EBCE program next year? (Check yes or no)

1. 95% 176 Yes 2. 5% 9 No

Why? (Check one or more of the reasons below)

77%	157	1.	Program is worthwhile
37%	75	2.	I like the people involved
50%	101	3.	My participation is a community service
22%	44	4.	It is challenging to me
0%	0	5.	I have had problems with the staff
0%	0	6.	I have had problems with the students
1%	2	7.	The program is not effective
1%	2	8.	I don't have time
9%	19	9.	Other _____

13. What do you think are the greatest <u>strengths</u> of the program? (Check one or more reasons)

45%	91	1.	Good alternative to a regular high school program
19%	39	2.	Quality of the staff
77%	157	3.	Students learn about a variety of careers
78%	160	4.	Students learn about real life situations
37%	75	5.	Good way of getting students to learn
64%	131	6.	Experience in working with adults
2%	4	7.	Other _____

14. What do you think are the greatest <u>weaknesses</u> of the program? (Check one or more reasons)

21%	42	1.	Some students can't handle the freedom
4%	8	2.	Problems in the organization of the program
13%	27	3.	Students not receiving sufficient training
6%	13	4.	Inadequate supervision of students on job sites
4%	9	5.	Too much paperwork
22%	44	6.	Lack of feedback about students
15%	30	7.	May be too difficult/technical for some students
42%	85	8.	Other _____

15. What do you feel students are able to learn on job sites that they could not learn as well in a regular school classroom? (Check one or more reasons)

85%	174	1.	First hand knowledge of demands in a "real world"
77%	157	2.	Working with other people
62%	127	3.	On-the-job skills
51%	104	4.	Self-descipline
36%	74	5.	Motivation to learn
0%	0	6.	Nothing
4%	8	7.	Other _____

16. What other comments or recommendations about the program would you like to make?

- opportunity for students to get first hand knowledge of a particular career
- would like to see the length of time for each student on the job made longer
- scheduling was difficult because students weren't there all day
- seems to be an effective program as long as the students are serious about what they are involved in
- more tests should be given so that the employer has a better idea of what the student is learning
- would like to interview and get more data on student prior to placement
- employers and their cliental receive a rewarding experience working with these students

It would have been helpful to have had a brief outline as to what the student hoped to achieve during the time with me. I might have been able to plan a better experience for the student

Great method of teaching--experience. Make sure student is truly interested in the particular field he applies for.

SEX ROLE STEREOTYPING

One of the objectives of the EBCE program was the elimination of sex role stereotyping. In order to accomplish that an attempt was made to place students in experience sites without regard to traditional sex roles. The results are shown in Tables 13-17. Those tables show that:

- About 14 percent of the resource persons were in nontraditional job roles (table 13).
- About 8 percent of the male site explorations and 40 percent of the female site explorations were of nontraditional job roles (see table 14).
- About 15 percent of the male students and 75 percent of the female students explored at least one job that put them in a nontraditional sex role (see table 15).
- About 33 percent of the male students and 82 percent of the female students had at least one site exploration with a resource person of the opposite sex.

TABLE 13

TRADITIONAL AND NONTRADITIONAL JOB SITES AVAILABLE

Area	No. of Exper. Sites	Traditional Male Jobs	Traditional Female Jobs	Traditional Both Jobs	No. of Female Resource Persons in Traditionally Male Jobs	No. of Male Resource Persons in Traditionally Female Jobs	Total Resource Persons in Nontraditional jobs N	Total Resource Persons in Nontraditional jobs %
Clarion	10	3	7	0	0	2	2	20.0
Fort Dodge	88	48	40	0	7	9	16	18.2
Humboldt	41	32	8	1	4	2	6	14.6
ICCC	55	37	17	1	3	3	6	10.9
Lake City	13	6	7	0	1	4	5	38.4
Pocahontas	58	33	19	6	5	3	8	13.8
Sac City	33	13	20	0	3	5	8	24.2
St. Edmonds	13	6	7	0	0	3	3	23.1
Storm Lake	185	116	50	19	9	6	15	8.1
Totals	496	294	175	27	32	37	69	13.9

TABLE 14

TOTAL NONTRADITIONAL SITE EXPLORATIONS

	Total Exploration			Nontraditional Exploration					
				Male		Female		Total	
Area	Male	Female	Total	N	%	N	%	N	%
Clarion	2	16	18	1	50.0	2	12.5	3	16.6
Fort Dodge	14	75	89	3	21.4	33	44.0	36	40.0
Humboldt	43	38	81	2	4.6	20	52.6	22	27.2
I CC	28	26	54	4	14.3	13	50.0	17	31.4
Lake City	3	10	13	0	0.0	3	30.0	3	23.1
Pocahontas	54	73	127	3	5.6	14	19.2	17	13.4
Sac City	20	26	46	4	20.0	3	11.5	7	15.2
St. Edmonds	5	8	13	0	0.0	2	25.0	2	15.4
Storm Lake	190	203	381	12	6.3	98	48.3	110	28.9
Totals	359	475	834	29	8.1	188	39.6	217	26.0

TABLE 15

NONTRADITIONAL SITE EXPLORATIONS, BY STUDENT

	Total Students			Students Making at Least One Nontraditional Exploration					
				Male		Female		Total	
Area	M	F	T	N	%	N	%	N	%
Clarion	1	5	6	1	100.0	2	40.0	3	50.0
Fort Dodge	4	20	24	0	0.0	18	90.0	18	75.0
Humboldt	11	9	20	2	18.2	8	88.9	10	50.0
ICCC	6	5	11	4	66.7	5	100.0	9	81.8
Lake City	2	4	6	0	0.0	3	75.0	3	50.0
Pocahontas	14	15	29	3	21.4	12	80.0	15	51.7
Sac City	5	7	12	1	20.0	3	42.9	4	33.3
St. Edmonds	2	3	5	0	0.0	1	33.3	1	20.0
Storm Lake	34	25	59	1	2.9	18	72.0	19	32.2
Totals	79	93	172	12	15.2	70	75.3	82	47.7

TABLE 16

SITE EXPLORATIONS WITH RESOURCE PERSONS OF THE OPPOSITE SEX

	Students		
	Males	Females	Total
Number of students	79	93	172
Number of students having at least one site exploration with a resource person of the opposite sex.	26	76	102
Percent of students having at least one site exploration with a resource person of the opposite sex.	32.91	81.72	59.30
Total number of site explorations	359	475	834
Number of site explorations with resource person of the opposite sex.	34	191	225
Percent of site explorations with resource person of the opposite sex.	9.47	40.21	26.98

TABLE 17

JOB EXPLORATIONS INVOLVING RESOURCE PERSONS IN NONTRADITIONAL ROLES

	Explorations	Number of students having at least one of this type exploration
Girls with Males in female jobs	54	45
Girls with Females in male jobs	36	28
Boys with Males in female jobs	4	3
Boys with Females in male jobs	11	9
Totals	105	85